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ABSTRACT

This report describes the ways in which the business and education communities in Florida can work together (and with the government) to develop productive linkages in education and economic development and to plan for industry's training needs. The report is based on meetings, surveys, and interviews conducted by the Florida Education and Industry Coalition. It is divided into four chapters. Chapter 1 discusses the coalition's view that future living standards for all Florida citizens depend directly on sustained economic development, which, in turn, will increasingly require well-educated and highly skilled workers. It also describes, briefly, several of the state's major demographic, economic, and competitive challenges that make education improvements imperative. Chapter 2 profiles several positive initiatives and outlines the process by which the coalition prepared the report. Chapter 3 describes what the coalition believes should be the objectives of Florida's education and training system in meeting the needs of business. Chapter 4 makes a series of specific recommendations for improvements in the key areas of communication, planning, coordination, the special needs of high-technology industries, and marketing. The survey form and interview questions are appended. (KC)

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Strengthening The Linkages: Education And Economic Development

A Report from the Florida Education & Industry Coalition

November 1987

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November 1987

On behalf of the Florida Education and Industry Coalition, I am pleased to present our report, **Strengthening the Linkages: Education and Economic Development, 1987.**

Our study responds to the Board's 1985 request, which asked the Coalition to make recommendations for enhancing the state's economic development through improved education and training. Given the composition of our membership, we emphasized the ways in which the business and education communities can work together (and with government officials) to develop productive linkages in this area and to plan for industry's training needs.

The report, prepared over the past two years, is based on meetings, surveys and interviews. It is divided into four chapters. Chapter 1 **(The Stakes)** discusses our view that future living standards for all Florida citizens depend directly on sustained economic development, which, in turn, will increasingly require well-educated and highly skilled workers. We also briefly describe several of the state's major demographic, economic and competitive challenges that make education improvements imperative.

Chapter 2 **(The Opportunities)** profiles several positive recent initiatives and outlines the process by which the Coalition prepared this report. Chapter 3 **(The Goals)** describes what the Coalition believes should be the objectives of Florida's education and training system in meeting the needs of business. And Chapter 4 **(The Next Steps)** makes a series of more specific recommendations for improvements in the key areas of communication, planning, coordination, the special needs of high-tech industries, and marketing.

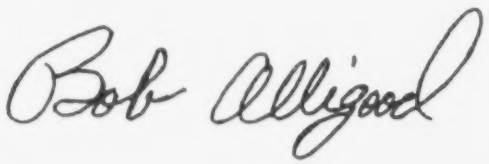
Because this report responds to a request by the Board of Education, virtually all of our recommendations are aimed at public policymakers. The Coalition recognizes, however, that business executives and educators share the responsibility for helping to educate and train the current and future generations of Floridians. The task is too large to be shouldered by one sector alone and too important to be neglected by any.

We do not pretend our suggestions are comprehensive. Rather, our goal was to identify some of the critical issues that must be addressed. Nor are our recommendations unique. Many have been made before, but in cases where they have not yet been fully implemented, the Coalition wishes to add its support.

Finally, our report represents an attempt at developing consensus among diverse interests. Not all participants agree with *all* recommendations. We are united, however, by a compelling concern about the health and vitality of Florida's education and training system. And we share a mutual commitment to work together for improvements that will benefit all Florida residents—now and in the future.

In that spirit of cooperation, the Coalition is pleased to present its report.

Sincerely,



Strengthening The Linkages: Education And Economic Development

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A Report from the Florida Education & Industry Coalition

SUMMARY OF RECOMMENDATIONS

In taking steps to plan for industry's future training needs and enhance the contribution of education and training to Florida's economic development, the Florida Education & Industry Coalition recommends that state policymakers focus on 11 steps.

Communication

1. Florida should continue to support initiatives and provide funds for incentives for educational institutions to reach out to involve the business community in educational planning and problem solving.

Planning

2. The state should provide funds to ensure that educational planning incorporates occupational-needs information that is based on regional economic analyses and qualitative data as well as on historical trends.

3. The Occupational Identifier Project should be funded by the legislature and fully implemented by the Department of Education.

4. The Department of Commerce, the Postsecondary Education Planning Commission, and the Florida Education & Industry Coalition should sponsor a cooperative annual conference to identify industries which require in-depth examination of future education and training needs beyond the regular planning process.

Coordination

5. Florida should create a quasi-public "skills corporation" to manage training services for economic development.

6. The State Board of Education should require that an interagency committee be established at the state level to meet regularly and try to rationalize the various jurisidictions.

7. The State Board of Education should appoint a state-level coordinator of training.

8. The state should establish a single point of access to manpower-related services in each region of the state to serve the needs of business and industry.

The Special Needs of High-Technology Industry

9. Florida should fully fund the five-year plan, "Building Florida's Future: University Research in High Technology for Economic Development."

10. The state should examine current efforts to speed the transfer of new technology from academia to the marketplace, and fully fund the initiatives that work.

Marketing

11. The education system should engage in a comprehensive public information campaign to inform and enhance credibility with business and industry inside and outside Florida.

Chapter 1—THE STAKES

The Challenges

Over the past few years, America has been inundated with a series of reports on the state of American competitiveness. Groups such as the U.S. Chamber of Commerce, the Business-Higher Education Forum, the National Association of Manufacturers, the National Governors' Association, the AFL-CIO, the President's Commission on Industrial Competitiveness and the Council on Competitiveness have written hundreds of thousands of words. The reports have bemoaned the decline of the U.S. economy in the new global markets and built an agenda of public and private policies designed to reverse the nation's fortunes.

If the reports have done nothing else, they have focused the public's attention on the problem and identified the key issues for debate and action: The linkages between tax policy, government deficits and economic growth...the central importance of productivity gains...the need to retain American excellence in innovation, while doing a better job of making what we invent and of getting those inventions to the marketplace...the growing recognition of the value of cooperation among business, labor, education and government.

Of more immediate concern to the Coalition, the reports have demonstrated beyond a doubt the paramount importance of education to economic development and competitiveness. Indeed, education topped the list of key competitiveness issues cited by more than 2,500 business executives, university officials and state government leaders who were polled recently in a major study by the Conference Board, the National Governors' Association and the National Science Foundation.

The reports have accomplished one other very important task. They have underscored the reality that economic development and competitiveness are not just the latest business buzzwords. The stakes go far beyond corporate profit-and-loss statements. Truly at stake are the quality of life of citizens and the vibrancy of communities. As Cornell University President Frank Rhodes pointed out during a meeting of leading corporate, academic and political leaders in April 1986:

> "We need to ask every group, 'What's your own national priority? Is it quality of health care?' The way you fund it is competitiveness. "Is it the overall quality of national life and the standard of living?' The way you fund it is competitiveness. 'Is it national security?' You can't have it without competitiveness. On every occasion, we must hammer this message home."

As it plays its part in responding to the nation's competitive challenge, Florida must recognize it has special problems and challenges that require new levels of human skills, entrepreneurship, technical advances, and flexibility by public and private institutions

Florida is becoming established as a high-technology state. This has occurred as a result of targeted industrial recruitment efforts, the state's general business climate, and the natural attractiveness of the Sunshine State to high technology industry. Florida leads the Southeast and ranks in the top ten states nationally in high-technology and employment growth. That's good news, but high-tech places special demands on states—expensive research facilities must be kept up to date and a steady flow of well-trained engineers and scientists is needed.

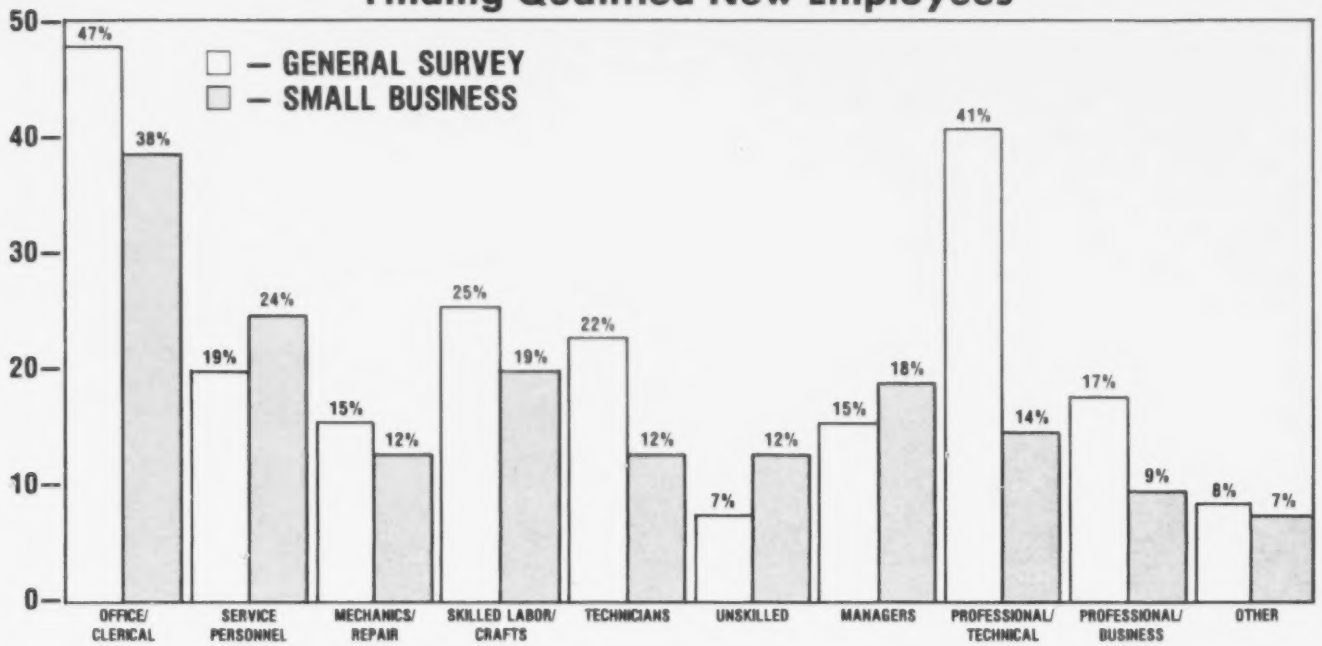
Service industries will provide most (perhaps as high as 80 percent) of the new jobs in Florida between now and the year 2000. These new jobs, while they will not be "high tech," will require new skills, and workers who can learn and adapt. Special emphasis on the educational needs of these industries—insurance, finance, hospitality, health, real estate, trade, education and government—will be crucial. The public must recognize, however, that productivity improvements—so essential for steady, sustained growth—are more difficult to achieve in the service sector. In addition, pay scales tend to be lower, potentially reducing living standards.

All economic sectors in Florida will have to adjust to a world market where Florida's traditional advantages of cheap labor, low taxes, cheap land, and sunshine are lessened. The new competitive edge for Florida business and industry must be found in our institutions of learning—knowledge, skills, innovation, and technology breakthroughs.

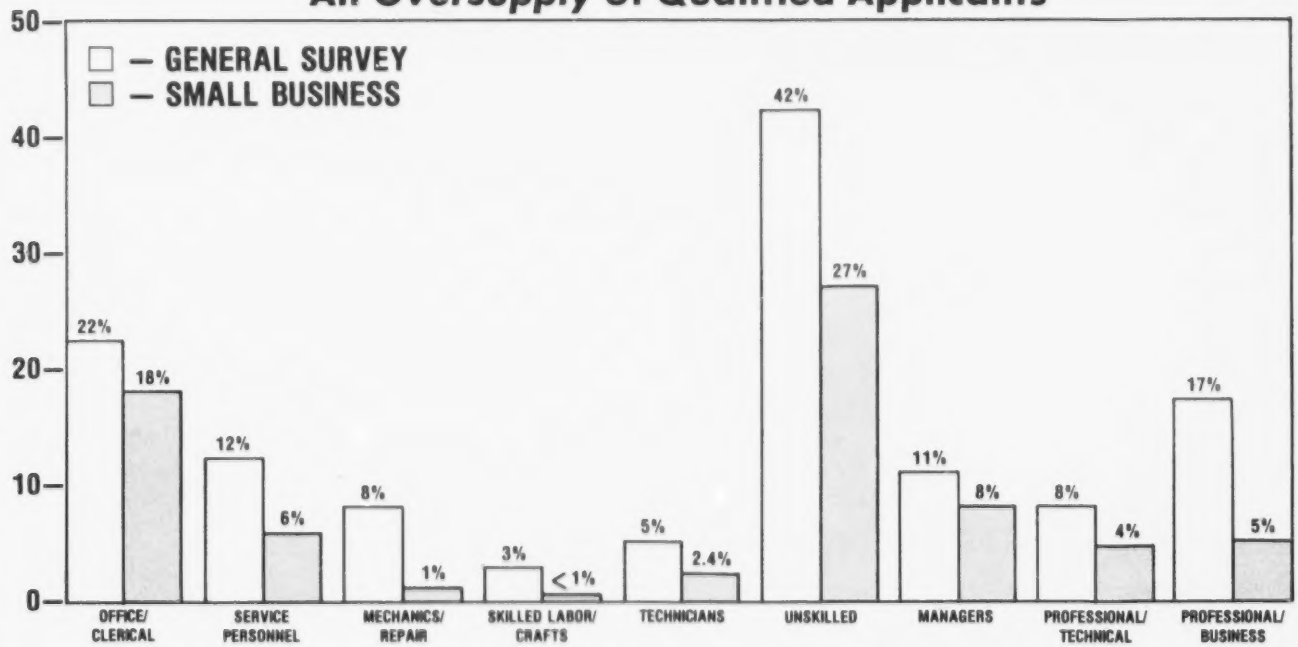
Florida's education system has made progress in all these areas, but many hurdles remain. First, the work force is at-risk of becoming obsolete. There are fewer new entrants into the labor force (Florida ranks 50th in the nation in percent of youth, ages 15—25), and many of those lack the skills to succeed. The nearly 40 percent of high school students who dropped out of the 1985—86 graduating class are clearly unable to compete for jobs in the future.

Many of those dropouts are minorities and females, who will make up the vast majority of new workers in the coming years. According to the National Governor's Association, only fifteen percent of new labor force entrants in the United States, between now and the year 2000, will be native, white, and male. Minorities in Dade County, where fifteen percent of Florida residents live, now outnumber native white students.

Percent of Respondents Indicating Difficulty Finding Qualified New Employees



Percent of Survey Respondents Indicating An *Oversupply* of Qualified Applicants



As demonstrated during the recent contentious debate over the service tax, clearly Florida's economic advantage as a low per capita tax state has turned to a fundamental challenge. Officials struggle to find the revenues needed to provide the schools, health care, roads, sewers, and criminal justice system that a growing progressive state and healthy economic development require.

The Linkages

In response to these economic challenges, Floridians ask education to help create jobs and recruit industries to Florida. Industries ask schools to provide innovative ideas and technical assistance. Many organizations seek tailor-made training and continuing education for their employees. Businesses want expert advice on countless problems. High-tech industries need postsecondary connections and support. Still there is a bottom-line expectation that the education system will engender the skills, knowledge, and attitutes to provide the most productive work force in the world. Educational planning to meet these challenges is increasingly complex.

Educators sometimes believe these goals threaten academic integrity; and carried to an extreme, their fears have merit. The Coalition contends these pressures offer new opportunities for schools to contribute to the public good, to attract students, to increase their resource base, and to engage in relevant and exciting research and teaching.

The increased demand that education play a major role in economic development is not a passing fad. As Florida responds to its technological, human and economic challenges, it is increasingly imperative that educational institutions and the business community communicate effectively about their needs, perceptions, and expectations for the future.

In summary, this report is based on the assumption that a distinctive educational system—elementary through graduate school—should contribute to desirable economic growth, and that a progressive economy can provide a foundation for educational excellence.

Chapter 2—THE OPPORTUNITIES

Public-private partnerships at all levels are one way to address the challenges associated with growing needs and scarce resources. The Postsecondary Education Planning Commission (PEPC) recognized this reality in its 1983 Master Plan for Postsecondary Education. Among other recommendations, the plan created the Trust Fund for Postsecondary Cooperation, which provided support for the Florida Education & Industry Coalition for two years.

At the same time a host of innovative programs have been initiated in the past several years throughout Florida. Among the more noteworthy are the following:

- The Eminent Scholars Program has used matching public-private dollars to create more than 80 endowed chairs at Florida universities.
- Industry Services, with a relatively small budget of just over $1 million, tailors quick-start training to new and expanding industries.
- The Trust Fund for Postsecondary Cooperation has provided seed grants to establish six regional consortia, which are designed to help educational institutions meet industry needs.
- The Sunshine State Skills Program, operated through the community colleges, offers grants for cooperative training for expanding industries. Its 1987-88 budget is $3 million.
- The Vocational Sabbatical Exchange Program allows technical instructors to obtain experience and update their skills in industry. In 1986-87, over 200 vocational instructors spent an average of two weeks at industry sites, mainly during the summer.
- Several state and regional councils were established in 1983 to promote linkages in various fields and geographic areas. Among them are: the High Technology and Industry Council, the State Job Training Coordinating Council, Regional Private Industry Councils, and Regional Coordinating Councils for Vocational Education.
- The Florida Private Sector and Education Partnership Act, passed in 1987, will provide a total of $800,000 in grants to school districts to encourage business-school partnerships. As part of that legislation, five school districts will receive funds to pilot an innovative drop-out prevention/employment program, the Florida Compact.
- The Five-Year High-Technology Research Plan, funded by the 1987 legislature, targets basic and applied research to technological areas of importance to Florida's economic development. The 1987 legislature appropriated $11 million to implement the first phase.

"The time is right for educators and business people to review their relationships and respond to the tremendous challenges facing our state and nation with new forms of collaboration." **(Bob Alligood, Reynolds, Smith and Hills)**

The Coalition's Project

It is against the backdrop of these positive efforts—many of which have been successful already, others which are too new to evaluate—that the Coalition began this project two years ago. The Coalition's goal was to strengthen the ties between educators and business executives—by building on the progress already made, by capitalizing on Florida's strengths and by identifying continued problems.

The project occured in several stages. First, existing linkages between education and economic development were researched, both in Florida and in other states. Throughout the past two years, the Coalition conducted meetings and carried on a continuous dialogue with educators, business and industry representatives, policymakers and other members of the Florida state government. The meetings focused on several topics:

- Responding to Business Needs (January, 1986)
- Meeting the Training Needs of Industry (May, 1986)
- Challenge of Competing in Research (October, 1986)
- Maintaining a Competitive Work Force (October, 1986)
- The High Technology Research Plan: Business Briefing and Discussion (April, 1987)

In addition, the Coalition surveyed business executives (approximately 550 survey respondents) for their views about education. Two similar surveys (Appendix A) were conducted. The first was a general sample of personnel and human resources officers in 178 Florida corporations, including small and large businesses (up to 5,000+ employees). The second was directed toward 370 small businesses, mostly firms with fewer than 50 employees.

Finally, Coalition staff conducted open-ended interviews with 26 CEOs or top corporate officers of Florida companies to obtain their views about the state's education and training needs. (Appendix B).

The surveys and interviews focused on the following topics: commitment to the education system; satisfaction with the system; interaction with the education community; employment needs; hiring and recruiting issues; research and development needs; training and retraining needs; and improving the relationship between education and industry.

The report does not address all the issues raised at Coalition meetings or in the surveys. For example, we have not discussed the constant need for more and better scientists and engineers. We have not discussed the important issue of international education, including geography and foreign languages, which have special significance in Florida and with a significant number of multi-national business operations.

The Coalition has learned first-hand that there are many business people in Florida who are deeply concerned about educational improvement. More important, they are willing to do something about it, especially at the local level, *if* asked, and *if* convinced results will occur. The Coalition urges policymakers to extend the invitation and expand the opportunities for cooperation.

Chapter 3—THE GOALS

Meeting the competitive challenges of economic development will depend first and foremost on an educated and skilled work force. In its landmark 1985 report, the President's Commission on Industrial Competitiveness observed: "America's people—our most vital resource—are the drivers of our economy. Their vision, skill and motivation are essential elements of our competitive potential. The greatest competitive strategy in the world is doomed to failure if it lacks a dedicated team of players to carry it out."

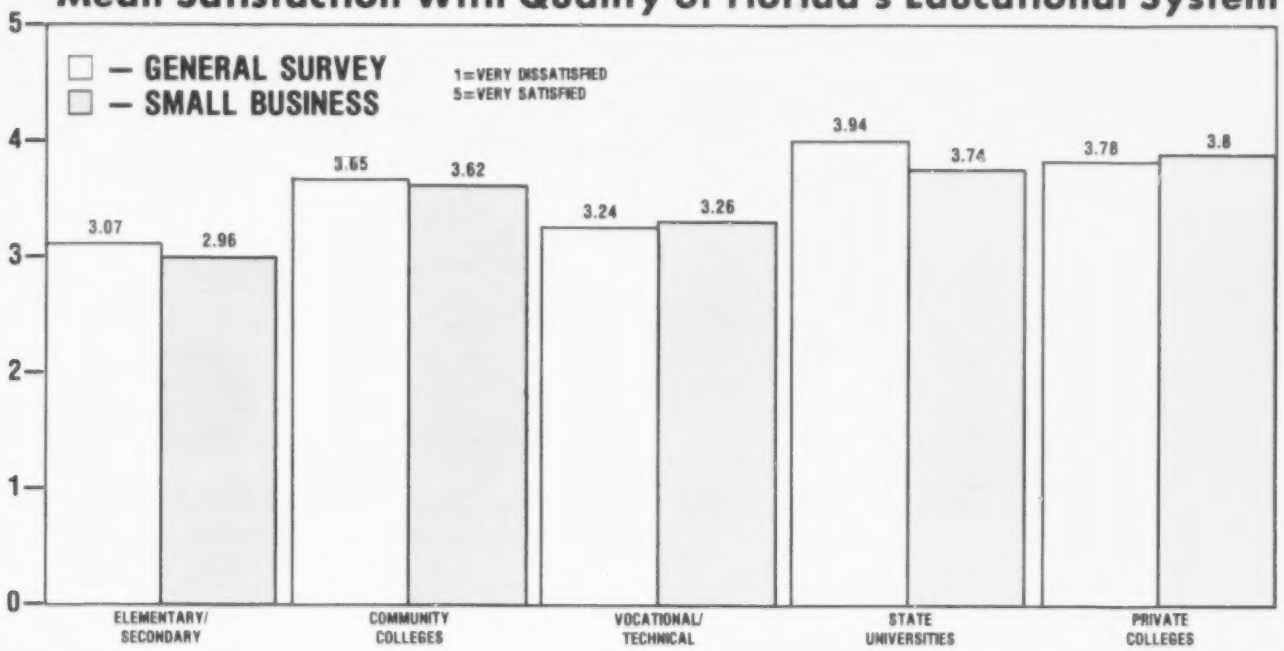
In developing an education and training system that ranks among the nation's best, the Coalition identified several key objectives, which may summarize "what business wants" from this complex system. Because today's economy means that people are likely to change jobs and careers several times, education, training and retraining must be seen as a lifelong process. The process should begin formally at the K-12 level and continue long after the final degree is earned. The education system must be altered to accommodate this new reality.

> ***"Florida is a wealthy state and should take pride in developing an outstanding educational system."*** **(Florida business person—interview)**

Virtually all participants in the Coalition's project agreed that Florida's education and training system has been improved significantly in the past several years. Overall, business executives are moderately satisfied with the education system. Nevertheless, problems remain—particularly in elementary and secondary schools. Meanwhile other states and nations are not standing still; they are improving, too. For those reasons alone, Florida must continue to bolster its education and training systems.

At the most fundamental level, *the education system must insist on basic skills*. Students must finish high school, and high school graduates must be able to read, write and reason. College graduates must be

Mean Satisfaction With Quality of Florida's Educational System



able to do the same, on a higher level. Today, Florida businesses are being required to provide too much remedial training. Barnett Bank, for example, spends over $5 million training employees, a large portion of which is remedial. One-third of small businesses, which provide the majority of new jobs, indicate they "usually" provide remedial education or training to entry-level personnel.

"Technical college programs need to place more emphasis on writing and public speaking. An engineer who can communicate can decrease the time on a particular job by 20 percent over one who can't." **(Florida business person—interview)**

Graduates should have the capacity to learn and grow on the job. Entry-level employees should be able to demonstrate that they have learned such essential work habits as an ability to dress appropriately and get to work on time, a willingness to work, and an understanding and appreciation of the free-enterprise system. In this regard, the Center for Career Development Services has developed a useful computer-assisted competency-based program that teaches employability skills. Educators might want to consider the program as a model to enhance their efforts.

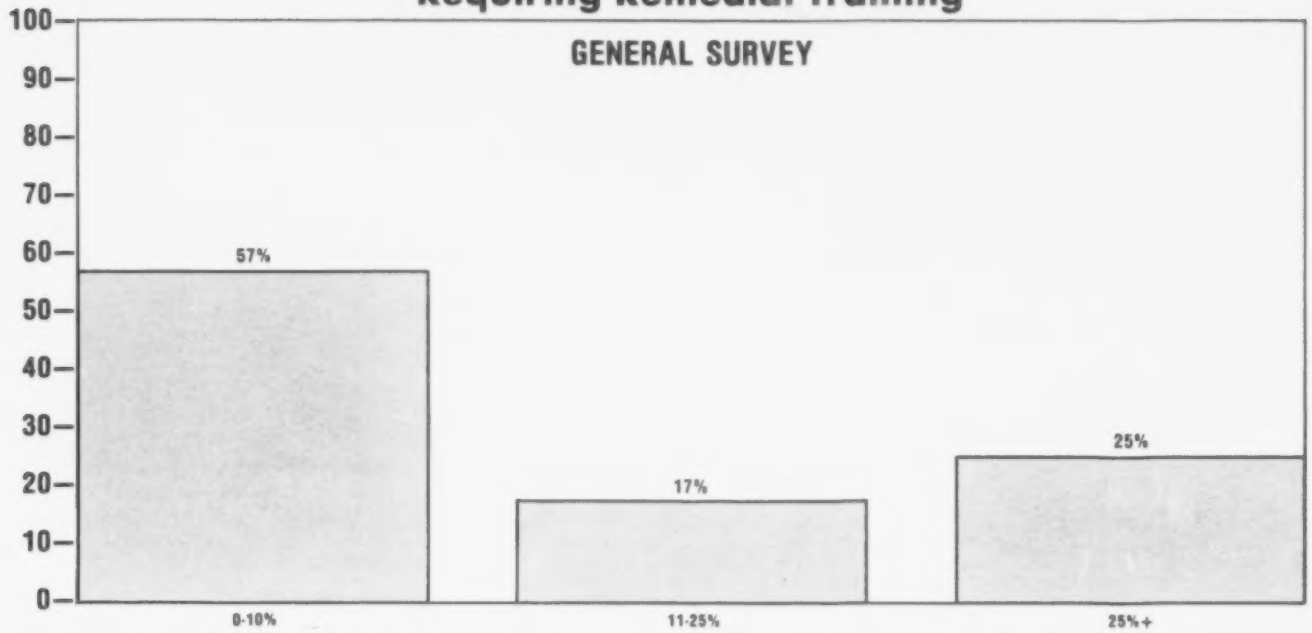
"What we really need are employees who can read and write and think—people with mental skills and ability to be flexible." **(David Lindemann, President, Huron Machine Products)**

Because Florida is becoming more reliant on minority workers, an even greater effort must be made to ensure that these citizens have the skills needed to participate fully and productively in the economy.

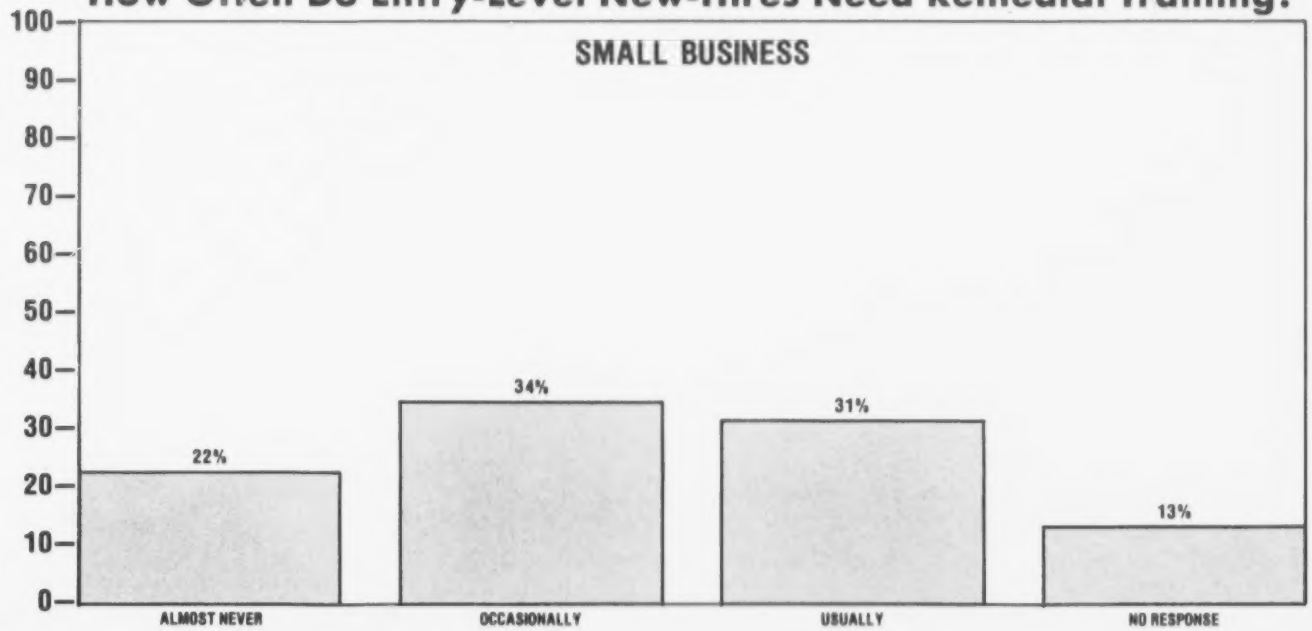
The increasing importance of high technology to Florida's economic future means that educators, starting at the elementary levels, should strive to increase the number of students taking mathematics, science and engineering courses. The state's research and development capabilities also must be enhanced. High-technology industry depends on intellectual capital, especially at the universities, and on modern facilities in which to conduct research. Institutions should commit the necessary resources to ensure that the state's capability for innovation is not compromised. Just as important, business and higher education should work together to facilitate technology transfer, the process by which research is taken from the laboratories and drawing boards into the marketplace.

An improved education system alone is not enough to promote economic development. *Florida businesses*

Estimated Percent of Entry-Level New-Hires Requiring Remedial Training



How Often Do Entry-Level New-Hires Need Remedial Training?



also need a more responsive training system. Just as companies must adapt quickly to change in consumer demand and marketplace tastes, training institutions must be able to respond quickly to businesses' new manpower requirements.

A key concept is *flexibility*. Three general objectives emerged from the Coalition's survey and interviews. First, educators should offer more training on evenings and weekends and provide incentives to encourage their faculty to cooperate. Second, they should provide more demand-based, cooperatively designed training programs at business and industry sites. And third, they should strengthen efforts to promote their educational services to businesses. Small business placed particular emphasis on this communication function.

At all levels, the education and training system *must insist on achievement and accountability*. Stringent academic standards are essential. Outcomes must be measured by results such as higher test scores, lower dropout rates, or increased enrollment in advanced courses.

"I personally feel that taxpayers are willing to pay for quality education, but there is a burden on the educational system to demonstrate that they are efficiently spending the dollars toward the goal of better educating students." (Florida business person—interview)

"The taxpayer wants to be shown what his tax dollar will accomplish in education as in any area of government. Until we have an educational system which can relate dollars to performance, we will have difficulty in getting the kind of public support education needs and deserves." (Improving Education In Florida, 1973.)

Schools and teachers should be rewarded financially for meeting—or exceeding—goals. During the Coalition's two-year project, business executives repeatedly said they would be willing to pay higher taxes to support education—but only if they could be assured that educators were held accountable for results.

Many of the specific recommendations that follow focus on meeting businesses' needs. The Coalition recognizes, however, that the paramount purpose of education goes beyond producing better workers. Schools and colleges exist to develop well-rounded citizens, whose opportunities for leading satisfying lives—on the job, within their families and in their communities—are enhanced by their educational experience. Local and state policymakers, professional educators, and business executives must develop substantive partnerships to achieve these goals—not only to boost the state's economy, but also to improve the quality of life for all Floridians.

How Florida Business Views Proficency Of Newly Hired Graduates From Florida Institutions

Survey respondents were asked to indicate how satisfied they are with the performance of Florida's education system. In the results shown, the figures represent the *percentage* of respondents in both the small business and general surveys (548 surveys) answering for each category.

	DON'T KNOW/ NO OPINION	VERY DISSATISFIED	SOMEWHAT DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	SOMEWHAT SATISFIED	VERY SATISFIED
BASIC SKILLS	17	3	13	24	39	4
WORK HABITS	17	5	25	26	25	2
ACADEMIC FITNESS	21	1	14	30	30	4
COMMUNICATION SKILLS	17	5	28	27	20	3
TECHNICAL SKILLS	20	2	13	24	36	5
CIVIC MINDEDNESS	25	9	21	28	14	3
LEADERSHIP	22	5	22	33	16	2

Chapter 4—MEETING THE NEEDS

Communication

Perhaps the major concern that emerged during the Coalition's research was the lack of regular and meaningful communication between the business and education sectors.

Both sectors suffer from a lack of meaningful interaction about progress and problems. Business people at the first Coalition meeting expressed the belief that educators often fail to ask the right questions, and that educators and business people leave most meetings with good feelings but with little or no results.

Many of the executives complained that educators do not adequately market and promote their programs and fail to identify business needs in training and education. Communication is a two-way street, however. Business people must make their needs understood and participate in the planning process.

"Professors sometimes look down their noses at us, but we are what it's all about. The results of working with each other are increased understanding and commitment to improvement . . . and down the line, better employees and better Florida." **(Florida business person—interview)**

Business executives' lack of understanding of educational services in their regions is often startling. When asked to review a list of state-operated or -funded training and consulting organizations, only one-third of survey respondents, most of whom were human resources executives, were aware of private industry councils. Only one-fourth of small businesses were aware of university Small Business Development Centers. Awareness of other services was negligible.

Organizations that are mandated to represent business interests in education are limited in scope and do not encourage real meetings of minds on future needs. Vocational Regional Coordinating Councils and Private Industry Councils, with their overlapping responsibilities and confusing boundary differences, received mixed reviews on effectiveness. Meanwhile, the newer regional consortia for higher education and industry are struggling to gain acceptance, identity, mission, and funds.

In our research, many executives indicated that they participate in the education system in a formalized way (as members of boards, committees, councils, and the like), but they see their roles as limited. Many believe they and their employees could be more involved in problem solving, planning and curriculum improvement.

From the business community's perspective, the bottom line appears to be this. Business people are willing to dedicate time, money, and expertise to issues when they are asked, and where there is the possibility of *results.* A good example is the enthusiasm and dedication of business people to an examination of electronics programs in the state by the High Technology and Industry Council. Another example is the extensive business involvement in the current community college program review of data processing/computer science by the State Board of Community Colleges.

Recommendation 1. Florida should continue to support initiatives and provide funds for incentives for educational institutions to reach out to involve the business community in educational planning and problem solving.

Some of the local and regional initiatives which have proven to be effective catalysts for improving communication should be expanded. Cooperative exchange programs, for example, place educators in industry and business people in schools. A faculty-return-to-industry program, which was carried out in 1986 under the auspices of the East Central Florida Consortium, leveraged state dollars very effectively. This model should be examined for broader implementation with state funding.

Dade County's partnership with Bankers' Life should also be examined carefully and expanded. As a result of joint planning, the school system operates a kindergarten program (to be expanded to K-3) at the work site. The company provides the facility. Everyone wins: the school system alleviates its crowded conditions, achieves great parental involvement, and saves money; the bank has satisfied employees, who rarely miss a day of work; and school children are close to, and on the same schedule as, their parents.

To be sure, the Dade County satellite learning center model has problems, notably with insurance and facilities specifications, which must be addressed. However, this is an example of a win-win model, which could be used as an economic development tool by communities that are able to offer an on-site or near-site elementary school package, similar to a training package, for a new or expanding company.

At the university level, Florida State University's Center for Economic Development sends students on twelve-week economic development internships in small Florida communities. The communities pay half the cost (often as an in-kind donation of lodging). Again, modest expenditure makes everyone a winner: communities get an economic development specialist they could not otherwise afford; and students receive valuable real-world experience.

Initiatives in other states would be excellent models for Florida to replicate. Two stand out. A group of new professors at the University of Georgia annually spend a week touring rural Georgia, discussing economic problems with their rural "constituents." The industry-affiliates program at Stanford University allows corporations (in return for fees of $1,000 to $20,000 per year) to attend campus meetings, receive publications, have access to new college graduates, and engage in personnel exchanges.

How can business people become proactive partners in the improvement of education and training?

There are virtually limitless opportunities for businesses to participate. Some of the more obvious include the following:

Show up at school board meetings, educational advisory committees, and chamber of commerce education committees. Ask about the real problems of concern to companies, such as drop outs, engineering curricula, student achievement, economic education, drug education, training program quality. Then, ask what can be done...and do something.

Local and state business and professional organizations have a responsibility to inform and involve their members in educational issues that affect their future. Invite the appropriate educational spokespersons to address the annual meeting. Include educational items of interest in publications. Pick the best members to serve on appropriate state and local educational policy bodies. Ask members and employees how they feel about educational issues and communicate their responses to the educational establishment.

Assign someone in the firm or organization to be responsible for educational ties—an assistant, a human resources executive, a training director, or a public affairs manager. Evaluate them on their effectiveness in this role.

Research the opportunities for partnerships and take advantage of them; many can save the company money and enhance profits.

Planning

Planning for future training needs is extremely difficult and complex. Business, education and government all share responsibility for doing a better job. Business people have trouble looking ahead more than one year at manpower and skills requirements—especially in industries that are volatile, dependent on federal or other soft-money contracts, or on the cutting edge of technologies. In spite of the difficulties, industry representatives recognize the importance of educational planning and are willing to improve their assessments to the extent possible.

For their part, schools often miss the market unnecessarily. Industry commonly complains that market forces do not seem to affect school planning in a timely way. Educational institutions and regions should aggressively keep tabs on what is happening in their economy.

In the public sector, numerous advisory committees, coordinating councils, regional consortia, private industry councils and boards have a responsibility to cooperate with business and industry to improve planning for the future needs of industry in Florida. While some of these groups have initiated exemplary local programs, they seem to have a limited impact on policy or even on their respective agencies in Tallahassee. Attempts in 1986 to determine how state-level planning for vocational training programs was accomplished were frustrated by polite bureaucratic avoidance.

In addition, planning for education and training programs requires accurate, relevant information. In a large and diverse state such as Florida, information must be broken down by regions for it to be useful. Educational planning data in Florida (as well as in other states) are not always considered valid. Further, the bulky, technical printouts are disliked by citizen volunteers in the process and by many educators.

The Florida Occupational Information System (FLOIS) in the Department of Labor provides information about projected occupational demand. FLOIS demand analyses are based on statewide data, however, and do not account for regional variations. Therefore, FLOIS fails to incorporate information about distinctive economic conditions or new industries in regions of the state. Anticipated training needs are forecast primarily from historical data, which are adequate in some fields, but not in new or cutting-edge technical industries.

Recommendation 2. The state should provide funds to ensure that educational planning incorporates occupational-needs information that is based on regional economic analyses and qualitative data as well as on historical trends.

Although Labor Department data can be broken down in a usable form by region, the department does not perform that analysis as part of its normal federal responsibility. Therefore, the state must provide additional funding for planning information that is adjusted for regional variations. A special analysis, which provided more realistic planning information, was done by FLOIS for Dade County in 1986. Similar data on local supply and demand could improve planning in other regions of the state.

Recommendation 3. The Occupational Identifier Project should be funded by the legislature and fully implemented by the Department of Education.

The 1984 Study of Postsecondary Education Information found that information about occupational demand was inadequate. In response, the Occupational Identifier Pilot Project was implemented. The project aims to provide better program evaluation information by integrating data on students who leave public vocational training programs with data on employment in the private sector and in the military. This cost-effective approach provides a basis for planning, which for the first time will rely on relevant outcome measures and insert a degree of accountability into vocational education.

Recommendation 4. The Department of Commerce, the Postsecondary Education Planning Commission and the Florida Education & Industry Coalition should sponsor a cooperative annual conference to identify industries which require in-depth examination of future education and training needs beyond the regular planning process.

A systematic method is needed to determine what industry categories, because of their importance for economic development, merit particular attention by the educational sector. Currently, studies related to educational planning are promulgated through the political process, sometimes without considering economic development.

Strategic planning, which includes the identification of desirable industries and their training needs, should be conducted on a more rational basis and on a high level. The Coalition, the Postsecondary Education Planning Commission, the Departments of Commerce, Education, Labor and Employment Security, and key business/industry representatives should participate.

A recent study of the film industry in Florida, prepared by the Postsecondary Education Planning Commission, resulted in a report, *Florida's Film Industry Growth: A Short History and Analysis of Implications for Postsecondary Education*, which is a model for the kind of effort needed. The state goal of building a competitive film industry in Florida required an education and training support system. This public-private collaboration provided a blueprint for developing educational programs to meet the needs of the film industry. In addition, a new advisory group in the Department of Education was formed to monitor the progress in cooperative planning.

Another example of targeted planning for industry needs is a recent effort by The Center for Industrial Excellence. The Center sponsored a national symposium on welding education and industry needs, which attracted instructors and industry representatives from throughout the nation. The Center expects meaningful data about the future needs in welding will be integrated into the planning process.

Coordination

The present education and training system can be a formidable, confusing labyrinth of programs with varying eligibility requirements and insufficient articulation. Various service providers, coordinating bodies, and policy and planning agencies operate with an array of interlocking federal, state and local funding. They may be governed by local school boards, boards of trustees or regional advisory councils. The agencies have a history of mutual mistrust.

The overlapping boundaries, duplication of services, and public confusion have been documented in several previous reports, including the 1982 Governor's Office study of vocational education, the 1983 report by the Governor's Commission on Secondary Schools, and the 1986 report by the Florida Commission on Vocational Education.

We would like to emphasize that the jurisdictional chaos harms economic development. For example, Putnam County was downgraded in an assessment of its economic development climate because it lacks total technical training services for industry. This county has St. Johns River Community College in place, but is required to rely on a vocational-technical center—far from the business center—which is administered by the St. Johns County school board. Further, they have no representation on the St. Johns County school board.

"If only the various institutions in my region could be more closely integrated so that we would know where to go for what!" **(Florida business person—interview)**

In addition, educational services for businesses and employees are not coordinated at the local level to repond to the needs of business and industry. For instance, it would be helpful if one regional or local office served as "one-stop shopping" offices for education, training and manpower needs. None do at this time.

The state has added many good programs and initiatives recently, partly to help promote economic development; it is now time to review and streamline the efforts. This may be most helpful for postsecondary vocational training, which often is singled out by both casual and informed business observers as confusing, bureaucratic, politicized, and wasteful of public resources.

Training services through public institions can contribute to industry competitiveness. Eighty-three firms of the 178 firms that responded to the general survey

provided an estimate of their "in-house" training budgets. Those budgets ranged from $2,000.00 to $3,500,000. The mean budget for those 83 firms was $268,000; the median was $50,000.

In order to serve industry needs, training systems should be:

- *flexible*
- *responsive*
- *cost-effective*
- *results-oriented*
- *adaptable to unique, unanticipated needs and*
- *accessible.*

Some centers for business and industry, which operate as quasi-proprietary training providers within the public community colleges, have adopted a style that moves business services in the above direction. Policymakers could take additional steps to build on that foundation

Recommendation 5. Florida should create a quasi-public "skills corporation" to manage training services for economic development.

The proposed new corporation, patterned after the Bay State Skills Corporation in Massachusetts (see sidebar), would be financed by a mix of public and private funds. The corporation would be free to contract with any training organization in the state, public or private, on behalf of business and industry.

As such, it would have the flexibility, responsiveness, accessibility and results orientation so often sought by business and industry. Efforts could be targeted precisely to the current training needs of Florida industry. Training providers would become more efficient through competition. Public-private partnerships would be encouraged. Public funds would be used as leverage to stimulate private sector expenditures on training.

Although far-reaching, this reorganization could be undertaken rapidly, with a minimum restructuring of existing institutions and, the Coalition believes, with minimal additional public expenditures. The proposed initiative would combine the efforts of the existing Industry Services Training Program of the Division of Vocational Education and the Sunshine States Skills Program of the Division of Community Colleges. Both have been quite successful, but on a limited basis. Their combined current funding is slightly over $4 million, and their combined funding request for 1987-88 exceeds $8 million, which may be enough to launch the new program. In addition, some of the skills corporation's activities would qualify for Job Training Partnership Act (JTPA) funds.

Clearly, none of the current training agencies will embrace eagerly the idea of yielding current authority to a unified outside agency. Short of this approach, the roles and responsibilities of two programs—The Sunshine State Skills Program and Industry Services—should be defined to eliminate duplication. The Division of Community Colleges has suggested that Industry Services, in cooperation with the Department of Commerce, be specifically designated to provide quick-start training for new industry in Florida; and the Sunshine State Skills Program be available to local communities to assist existing industry with training for expansion or new skills.

Recommendation 6. The State Board of Education should require that an interagency committee be established at the state level to meet regularly and try to rationalize the various jurisdictions.

This committee would recommend to the legislature ways to make the systems more efficient and effective, as well as oversee a coordinated system-wide database. The committee might reflect the organizational make-up of the 28 Regional Coordinating Councils for Vocational Education. The present coordinator of those councils would serve on to the new committee. Although a less far-reaching approach than the establishment of a skills corporation, the committee could serve as a focal point for additional improvement.

Bay State Skills Corporation

At its most fundamental level, the Bay State Skills Corporation funds training programs on a competitive basis, that are consistent with employment needs and economic development objectives in Massachusetts. Training may take place at any institution, public or private, in the state. Some of the appealing features include:

- **Active involvement by company personnel and Bay State staff in planning, designing, operating, teaching, monitoring and evaluating the training and educational programs to determine that the programs meet employment needs.**
- **Mandatory corporate contributions, which may consist of time, cash, equipment, materials, supplies, and space.**
- **Training of all levels of personnel in accordance with regional industrial priorities, from advanced continuing education to entry-level training.**
- **Quick start-up and flexible program duration, ranging from twelve weeks to two years.**
- **Innovative initiatives to respond to opportunities in emerging technologies and occupations. Examples include seminars in industrial waste water treatment, electro-optics, biotechnology, and advanced automation.**

Recommendation 7. The State Board of Education should appoint a state-level coordinator of training.

Such a state-level coordinator of training would cross the boundaries between the Division of Voca-

tional Education, the Division of Community Colleges, the State University System, and the State Job Training Coordinating Council. The state-level coordinator might supervise regional associates who could be assigned, for example, the tasks of assessing and promoting training services through direct mail marketing, brokering cooperative agreements, and operating a one-stop information service, affiliated with the Economic Development Clearinghouse in the Department of Education.

This coordinator must have the requisite authority or funds to use as leverage to force action. Without a carrot or a stick, existing organizations are likely to pay only lip service to an office charged with coordinating their activities. The regional consortia have experienced this difficulty in getting the attention of both businesses and educators.

Recommendation 8. The state should establish a single point of access to manpower-related services in each region of the state to serve the needs of business and industry.

It should be easier for workers to find employers, for employers to find workers, and for businesses to find the best education and training programs to meet their particular needs.

"We can't figure out who you are or what agency is supposed to do what, and we don't have time to learn. Send us a person at the local level, for instance, who can tell us professionally and in plain, everyday language, all the resources that are in the pot." (Lester Freeman, President, Sun Teleservices of Florida Corporation.)

To establish "one-stop" shopping, the state could dedicate positions at the regional level to ensure that business and industry receive the best and most appropriate services and information on a timely basis. These may be in existing organizations, or may have to be located outside any existing "agency turf" in order to remain objective, obtain cooperation of institutions, and reduce the level of confusion.

At the state level, the Education Clearinghouse for Economic Development provides a single place where educational data about multiple systems can be obtained. Regional counterparts, chosen through competitive grants, might be affiliated and on-line with this clearinghouse. Regional consortia for higher education and industry, local chambers of commerce, or Vocational Regional Coordinating Councils—which now cover the state and have varying priorities and activities—are logical candidates for this type of clearinghouse activity.

Recommendations 5—8 all stop short of restructuring the systems which provide training services in Florida. Taken separately or as a package, however, they should help bring public training services for industry in line with economic development needs.

"The Commission has determined that there is a need for clearly defined responsibilities for planning, funding, operating and accounting for a unified, coordinated, totally integrated system of vocational education in Florida." (Florida's Vocational Education System: Toward the Year 2000. Report of the Florida Commission on Vocational Education, 1986.)

"An overview of the organizational and governance structure of Florida's vocational program emerges only as a result of a rather arduous journey through a myriad of laws and rules . . . This system has resulted in a lack of specificity in some laws and duplication in the assignment of responsibility in other laws. As a result, the legally mandated governance structure for vocational education is such that accountability for specific goals and objectives is difficult to assign." (Vocational Education Study, Office of the Governor, 1982.

THE SPECIAL NEEDS OF HIGH-TECHNOLOGY INDUSTRY

Because the advancement of research and development capacity is crucial to the kind of economic development Florida has targeted, Florida industry needs the universities' technological creativity now more than ever.

Florida's universities have grown in research expertise and productivity in recent years. Still, Florida receives less than fifty percent of the national average per capita funds for federal and industrial research. It is essential that the business community and state government rally to take advantage of Florida's current strong standing in Congress to bring more federal research dollars to state universities. The Coalition commends the state support of an application for a National Science Foundation biotechnology research center at the University of Florida. Perhaps this will serve as an impetus to additional efforts along the same lines.

Recommendation 9. Florida should fully fund the five-year plan, "Building Florida's Future: University Research in High Technology for Economic Development."

The significant five-year plan was developed by the Board of Regents and the Florida High Technology and Industry Council. It represents a collaborative planning effort by educators and business executives, which occurred partly as a result of criticism from business about duplicative, wasteful research efforts and competition among universities.

The plan is a unified, statewide proposal supported by private and public universities. With this single action plan, and a good informational effort, the universities have obtained widespread business support and unified support from Florida's Congressional delegation. We urge the legislature to fully fund the plan at the state level.

Recommendation 10. The state should examine current efforts to speed the transfer of new technology from academia to the marketplace, and support the initiatives that work.

The High Technology and Industry Council has supported joint ventures of business and universities through the Advanced Technology Fund. These efforts have contributed to the exchange of information between the sectors. In addition, the Southern Technology Applications Center (NASA-STAC) provides a source of information about research capabilities at the universities, which is available to industry. These efforts should continue.

Research and development parks, small business development centers at universities, university NASA-STAC centers, and professional associations contribute to cooperative technology development and communication among the various interests. Through these and other mechanisms, the state should support dissemination of information from academia to medium and small firms interested in new product development.

Technology transfer centers, patterned after agricultural extension services, could collect and disseminate results of new research and help industry solve technical problems. The legislature mandated the establishment of technology transfer centers at community colleges in Florida (F.S. 240.334). These have not yet been established. Community colleges, within convenient reach of most Florida businesses, are appropriate institutions to provide this technical assistance, and the existing legislation should be implemented.

MARKETING

Education and training issues are uppermost on the minds of business people who are looking for sites to locate facilities. Many states, particularly southern ones, are spending large sums of money to market the quality of their education systems—training, research, public schools, and universities.

"A company that moves into a state as Grumman has in Florida, with old northeastern ties, needs information and assistance to link up." (Chick Garcia, Grumman Aerospace Corporation)

A strong effort by Florida could improve the state's underrated reputation. Economic development professionals in the Department of Commerce and throughout the state need to be well informed about the educational strengths Florida can offer. While it varied among regions of the state, it was widely believed by business people that university and community college presidents and deans also should be more aggressive in promoting their institutions in the business community.

Real problems exist. In no way does the Coalition mean to suggest that image enhancement can substitute for real progress in the effective and efficient delivery of services. Entry-level skill deficiencies, adaptiveness to industry needs, Florida's national status with regard to distinguished academic and research institutions, and high standards across the system—these are real issues and critical to economic development. Nevertheless, Florida has made progress and is underrated in many of these and other areas. A comprehensive marketing and public information program is needed to ensure that Florida's economic development remains competitive with other states.

"Don't make the business community come to you and tell you what they need—you go to them. The Department of Commerce tells business people to go to the educators, but please, educators, go to them. Ask them what they need, concentrate on what they have to say. Meet them on their turf, listen to their concerns, and don't bury them with twenty pounds of course descriptions." (Steve Mayberry, Department of Commerce)

Recommendation 11. The education system should engage in a comprehensive campaign to inform and enhance credibility with business and industry inside and outside Florida.

Marketing is expensive and requires expertise. Nevertheless, the payoff often far outweighs the cost, and fortunately, some worthwhile programs have been created in the past few years. These might serve as cost-effective models to start with.

For instance, the Coalition produced a booklet, "Florida's Education Enterprise—Responding to the Needs of Business and Industry," which is used by economic development professionals seeking to attract firms to Florida. It describes some of the exciting initiatives underway and points to the progress Florida has made at all levels in education. Similar publications, highlighting local and regional linkages between education and economic development, would be useful for chambers of commerce, committees of 100, and industrial recruiters.

The Coalition suggests that in addition to producing publications, a high-quality video tape be developed to assist business people in understanding Florida's system of education. Of special use would be an informative program about training services available for business and industry. The video tape or computer disc could be used by the state's training and human resource personnel in the state as well as by economic development professionals. A quality presentation of 20 to 30 minutes would cost approximately $30,000. The Coalition recognizes such an effort could very well require an unprecedented level of interagency cooperation—in terms of funding, production, and distribution. Yet, the effort could yield significant positive results.

Another model might be found in local school districts whose school officials accompany economic development teams on industry-recruitment missions. In Palm Beach, for example, public school officials join industrial development teams. They discuss educational issues with executives (and sometimes employees who are being transferred) from firms considering a move to their county. Their experience should be shared with other Florida communities.

APPENDIX ONE

Higher Education And Industry Survey*

1. What is the primary business of your firm?
   ____ agriculture
   ____ construction
   ____ finance, insurance,
   ____ real estate
   ____ manufacturing
   ____ mining
   ____ retail trade
   ____ utility
   ____ transportation,
   ____ communications
   ____ services (legal,
   ____ health, social)
   ____ services (hospitality)
   ____ services (other)
   ____ wholesale trade
   ____ other_____
2. How many people does the firm employ in the State of Florida?
   ____1—10 ____11—25 ____26—100 ____101—500
   ____501—1000 ____1001-5000 ____more than 5000
3. Where does your firm have (major) facilities in Florida?

   _____

*Survey sent to small business firms was a modified version.

4. The Florida Educational system (both public and private schools) offers benefits and services to business, some of which are listed below. Please circle the appropriate number on the scale, from 1 to 5, to indicate how satisfied you are with the performance of the Florida Educational system.
   5 = Very satisfied with Florida's educational performance
   4 = Somewhat satisfied
   3 = Neither satisfied nor dissatisfied
   2 = Somewhat dissatisfied
   1 = Very dissatisfied
   0 = Lack information to evaluate

(A) General quality of Florida's:						
elementary/secondary education	0	1	2	3	4	5
community colleges	0	1	2	3	4	5
vocational/technical schools	0	1	2	3	4	5
state universities	0	1	2	3	4	5
private educational institutions	0	1	2	3	4	5
(B) Preparation of entry-level professional personnel in Florida:						
engineers	0	1	2	3	4	5
scientists	0	1	2	3	4	5
managers	0	1	2	3	4	5
technicians/skilled workers	0	1	2	3	4	5
clerical	0	1	2	3	4	5
high school graduates	0	1	2	3	4	5
other _____	0	1	2	3	4	5
(C) Proficiency of newly-hired (college and technical) graduates from Florida institutions:						
basic skills	0	1	2	3	4	5
work habits	0	1	2	3	4	5
academic fitness	0	1	2	3	4	5
communication skills	0	1	2	3	4	5
technical skills	0	1	2	3	4	5
civic-mindedness	0	1	2	3	4	5
leadership	0	1	2	3	4	5

5. Educational system's relationship to business and economic development.
   Please complete the items below by checking the one item which best describes your opinion.
   (A) Resources at Florida colleges and universities are:
   ____(a) Easily accessible
   ____(b) Moderately accessible
   ____(c) Difficult to access
   Any comments? _____

   _____

   (B) The relationship between the business community and higher education in Florida can best be described as:
   ____(a) Adversarial
   ____(b) Relatively non-existent
   ____(c) Cooperative
   ____(d) Other (explain)_____

(C) The most important task for educators related to business needs is to (rank 1-4, number 1 most important):
____(a) Coordinate their services and reduce waste and confusion
____(b) Promote and communicate their services to business
____(c) Initiate more cooperative ventures with business
____(d) Be more flexible & adaptable to meeting needs of industry
____(e) Other (explain)_____

(D) The caliber of Florida's academic institutions of higher learning, generally, can best be described as:
____(a) A weak link in Florida's economic development efforts
____(b) A strong selling point in Florida's economic development efforts
____(c) In need of improvement, but deserving of credit for making progress toward excellence
____(d) Mediocre, with pockets of high caliber programs
____(e) Other (explain)_____

6. Employment needs of your firm.
Please check below those job categories for which you currently have difficulty finding enough qualified new employees. (Write in more specific job titles in the space provided, if necessary; for example, you might specify word processing under "clerical.")

Category	Job title/special skills
____a. Office/clerical	_____
____b. Service personnel, including sales	_____
____c. Mechanics/repair	_____
____d. Crafts/skilled labor	_____
____e. Technicians	_____
____f. Unskilled workers	_____
____g. Managers	_____
____h. Professional-technical	_____
____i. Professional-business	_____
____j. Other (specify)	_____

Please check below those job categories (see above) for which you have an oversupply of qualified applicants.
____Office/clerical
____Mechanics/repair
____Technicians
____Managers
____Professional-business
____Professional-technical
____Service personnel, including sales
____Crafts/skilled labor
____Unskilled workers
____Other_____

7. Hiring/recruiting issues.
Please indicate your firm's hiring/recruiting policies and procedures. It is understood that figures are approximate and vary from year to year.
(A) Approximately how many new college graduates were hired in 1985?
____0 ____1-5 ____6-10 ____11-25 ____26-100 ____100+
Will the numbers most likely increase, decrease, or remain fairly constant for 1986-87?
____Increase ____Decrease ____Remain constant

(B) If you hire college graduates:
—What percent from Florida institutions? ____%
—From what college majors, generally? _____
_____

(C) Approximately how many entry-level (NON-college graduates) employees were hired in 1985?
____0 ____1-5 ____6-10 ____11-25 ____26-100 ____100+

(D) Has the educational system in your region been an asset or a detriment to your recruiting/hiring efforts?
____asset ____has little effect ____detriment ____don't know

(E) In looking ahead to your company's employment needs in 1990.
—What do you foresee as critical shortage areas, if any?

—What jobs will gain in importance?

—What jobs will decline in importance?

(F) Any other suggestions for the educational system to make your hiring/recruiting tasks easier and more effective?

8. Training and retraining needs.
(A) How much of your firm's training and retraining is done "in-house"?
____none ____1%-25% ____26%-50% ____51%-75% ____75%+

(B) Please estimate, if possible, the "in-house" training budget for your firm.
$_____

(C) What percent of entry-level new hires in your firm requires remedial education or training to function in their positions?
____0%-10% ____11%-25% ____25%+

(D) Are you aware and have you made use of any of the following services and organizations?

Aware?	Used?	
_____	_____	Industry Services Training Program
_____	_____	Florida Engineering Education Delivery System
_____	_____	Sunshine State Skills Program
_____	_____	Regional Consortia for Education & Industry
_____	_____	Private Industry Councils (PICs)
_____	_____	Small Business Development Centers

(E) Do you have a cooperative relationship with any outside education/training institutions, public or private, to train or retrain employees?

____yes ____no

If yes, please indicate:
Institution(s) _____
Types of training _____
Satisfactory _____
On work site or off site? ____on ____off
Customized for your firm? _____

(F) Any suggestions for educational system to make your training/retraining tasks easier and more effective?

9. Research and technology needs.
(A) Does your firm sponsor or support any university-based research?

____yes ____no

Please name principal educational institutions involved.
If no, why not?

What obstacles, if any, have you encountered in cooperating with colleges and universities in research and development activities?

(B) Does your firm participate in any other cooperative programs with universities and colleges?

____yes ____no

Please describe briefly.
(C) Any suggestions for the educational system to make your research and development tasks easier and more effective?

10. Please comment in any way that you feel would contribute to our effort to suggest how the educational system be more supportive to the needs of your firm—education, training, hiring, research, technical or other needs.

APPENDIX TWO
Interviews With Corporate Executives

Questions For Interviewing Corporate Executives In Florida

1. What is your personal, overall impression of Florida's system of education: (Quality; responsiveness to the needs of industry; strengths and weaknesses; first-hand experiences.)
2. Is it reasonable to work toward having a system in the top 10 or top 5 nationally? How important is that to you?
3. How do you feel about state funding for higher education in Florida? (What if it means higher taxes; who should pay the costs of college education; should there be more private funding for public colleges.)
4. What are the three most important issues in education of concern to your company in the next three years? (How have they changed; what should state government do about it; where does education rank in your priorities for social involvement for your firm—why.)
5. Is your company getting what you need from the educational system? (Entry-level employees; college graduates; technical employees; training and retraining; professional schools.)
6. Have you had personal contact with educators in the past year? What kinds of interactions do you have, if any, with Florida colleges?
7. Do you serve on any educational board or advisory groups?
8. From where does your company recruit new professional employees—engineers, managers, researchers? (From Florida institutions; satisfied; problems?)
9. How do you rate communication between Florida's business community and the education community? What do you think are the barriers to developing better relationships?
10. The Florida Education & Industry Coalition will be recommending to the State Legislature and the Cabinet how the educational system should respond to the needs of business and industry in the future. Would you suggest any areas that should be emphasized? Anything we have not already covered?

Interview Respondents

Bob Alligood, President
Reynolds, Smith & Hills
Jacksonville

George Angelucci, Training Operations Manager
Motorola Corporation
Plantation

Jim Batten, President
Knight Ridder Newspapers, Inc.
Miami

Jim Brown, President
Orlando Central Park, Inc.
Orlando

Dave Campbell, Senior Vice President, Administration
Tampa Electric Corporation
Tampa

Bob Coords, President
Sun Banks
Miami

Robert F. Crone, Jr., Plant Manager
Monsanto Fibers & Intermediates Company
Gonzalez

B. P. Crosby, President
Barnett Bank of Tallahassee
Tallahassee

Fred C. Donovan, President
Baskerville-Donovan Engineers
Pensacola

Fred Drake, President and Chairman of the Board
Mobile Home Industries
Tallahassee

Jeanne Faccadio, Director, Human Resources
Doral Hotel and Country Club
Miami

Robert R. Feagin, III, Chief Executive Officer
Holland & Knight
Tallahassee

Charles Ferneyhough, Vice President of Human Resources
Tropitone Furniture
Sarasota

William Griffith, Division Manager
Westinghouse Corporation
Pensacola

Thomas L. Hampton, Director, Engineering Technology
United Technologies'Pratt & Whitney
West Palm Beach

Robert H. Jackson, Director of Employee Relations
Gulf Power Company
Pensacola

Jerry Lundquist, President
Homes & Land Publishing Corporation
Tallahassee

Jay Malina, President
Anilam Electronics
Miami

Rudy Michaud, Senior Vice President
Metropolitan Life Insurance Corporation
Tampa

Bob Morris, President
Raymar Group Companies
Sarasota

John O'Hearn, Executive Vice President and General Manager
Times Publishing Company
St. Petersburg

Leslie D. Reagin, III, Vice President, Finance
and Administration
Jack Eckerd Corporation
Clearwater

Jan Smith, President
Jan Smith and Company
Bradenton

Gus Stavros, President
Better Business Forms
Pinellas Park

Carl Vignali, Vice President and General Manager
Honeywell Space and Strategic Avionics Division
Clearwater

Roberta Weinstein, Manager, Public Affairs
American Express
Fort Lauderdale

Florida Education Industry Coalition

136 South Bronough Street
Post Office Box 11309
Tallahassee, FL 32302